



# Measurement Tools and Finding Volume

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# Standards

## ALCOS Standard

**Math 5:22** Relate volume to the operations of multiplication and addition, and solve real-world mathematical problems involving volume.  
b. Apply the formulas  $V = L \times W \times H$  and  $V = B \times h$

## NCTM Standard

**Measurement**

## Objective

TSW use formulas to find the volume of rectangular prisms found in every day life.

## Number Talk

Solve the subtraction problem:

$$364 - 259 =$$

A large, empty rectangular box with a black border, intended for the student to write their solution to the subtraction problem.

## Today We Will...

**Purpose:** Today we will continue to work on volume, but we will learn the official formulas for finding volume.

**Objectives:**

- Identify and choose appropriate measuring tools for a variety of objects
- Find the volume of rectangular prisms using the formulas  $V = L \times W \times H$  and  $V = B \times h$

## Measurement Tools

### Herramientas de Medición

Tools We Use to Measure Objects		Herramientas que utilizamos para medir objetos	
Tool	Unit of Measurement	Tool	Unit of Measurement

# **Practice Choosing the Appropriate Unit of Measurement**



## Formulas for Volume

$$V = L \times W \times H$$

Volume = Length x Width x Height

$$V = B \times h$$

Volume = Area of the Base x height

Click on the front of the box to check your answer.



**Find the volume of the box. Show your work.**



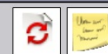
Click on the front of the box to check your answer.



**Find the volume of the box. Show your work.**

**Find the volume of a rectangular prism that is 6 cubes long 3 cubes wide and 2 cubes tall. Use the cubes to help you create a visual of the shape.**

Encontrar el volumen de un prisma rectangular que es de 6 cubos de largo 3 cubos de ancho y 2 cubos de altura. Utilice los cubos para ayudarle crear una imagen visual de la forma.



Click the Star for  
More Volume  
Practice!



## Summary

**Today the students reviewed the common units of measurement and the tools we use to find those measures. The students played a game as a whole group where they had to choose which tool would be best for measuring a specific object. The students learned how to apply the two common volume formulas to what they already knew about volume. Students also had an opportunity to practice using mental math to find volume in the volume link.**

Hoy los estudiantes comentaron las unidades comunes de medición y las herramientas que usamos para encontrar esas medidas . Los estudiantes jugaron un partido como todo un grupo en el que tenían que elegir qué herramienta sería el mejor para medir un objeto específico. Los estudiantes aprendieron cómo aplicar las dos fórmulas de volumen común a lo que ellos ya sabían de volumen. Los estudiantes también tuvieron la oportunidad de practicar el uso de cálculo mental para encontrar el volumen en el enlace de volumen.

## References

**Original Flip Chart:** <http://www.prometheanplanet.com/en-us/Resources/Item/42515/volume-and-surface-area-of-prisms#.VkrDv4Q4Q7d>

**Measurement Game:** <https://www.ixl.com/math/grade-5/choose-the-appropriate-customary-unit-of-measure>

**Volume Activity:** <https://www.ixl.com/math/grade-6/volume-of-cubes-and-rectangular-prisms>

Investigations in Number Data & Space Grade 5 Curriculum Unit 2,  
Teacher's guide: Prisms and Pyramids (Pearson)